

## ABSTRACT

The invention relates to novel platinum-based compounds for labeling biomolecules. Platinum based labeling compounds according to the invention irreversibly attach to a target biomolecule via coordination of a platinum (II) metal center with N or S atoms on the target biomolecule. The invention relates to the novel compounds themselves, methods of making the platinum-based labeling compounds, probes labeled with such compounds, methods of making such labeled probes, and kits comprising the novel platinum-based labeling compounds and/or probes labeled with them. The invention also relates to methods of using probes labeled with platinum-based labeling compounds of the invention, particularly array and microarray hybridization methods.

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